

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) An isolated polynucleotide comprising

(a) a nucleotide sequence SEQ ID NO: 1 or a modification, variant or fragment thereof having at least 95% identity to SEQ ID NO: 1 ~~wherein said modification, variant or fragment thereof is capable of hybridising to the complement of SEQ ID NO: 1; or~~

(b) a complement to (a);

wherein said sequence, modification, variant, fragment thereof, or complement identifies bacteria involved in the biosynthesis of cctcinascidin compounds.

2-6. (canceled)

7. (previously presented) A polynucleotide according to claim 1 having at least 97% identity or a complement thereof.

8. (currently amended) A polynucleotide fragment comprising at least 5, 10, 15, 20, 25, 30 or more contiguous nucleotides of a polynucleotide according to any one of the preceding claims wherein said fragment is ~~capable of hybridising to a polynucleotide according to any one of the preceding claims~~ identifies bacteria involved in the biosynthesis of cctcinascidin compounds.

9. (previously presented) A probe or primer comprising a polynucleotide fragment according to

claim 8.

10. (previously presented) A recombinant DNA comprising a polynucleotide sequence according to either claim 1 or claim 7.

11. (original) An isolated bacterium including a polynucleotide according to claim 1.

12. (previously presented) An isolated bacterium according to claim 11 identified as *Candidatus Endoecteinascidia frumentensis*.

13. (new) A probe or primer according to claim 9, wherein the number of contiguous nucleotides is at least 15, 20, 25, 30 or more.